

**PAT-NO:** JP403155832A  
**DOCUMENT-IDENTIFIER:** JP 03155832 A  
**TITLE:** CONTROLLER FOR  
ELECTRIC EQUIPMENT  
**PUBN-DATE:** July 3, 1991

**INVENTOR-INFORMATION:**

NAME	COUNTRY
SATO, YASUHIRO	

**ASSIGNEE-INFORMATION:**

NAME	COUNTRY
HITACHI LTD	N/A

**APPL-NO:** JP01295025  
**APPL-DATE:** November 15, 1989

**INT-CL (IPC):** A61B005/0476

**ABSTRACT:**

PURPOSE: To eliminate such problems as resetting of time and the disturbance of sleep, etc., by providing a brain wave

detecting means and a brain wave analyzing means, and controlling a power source switch, etc., by using a control signal generated from a control signal generating means in the case of a sleeping state.

CONSTITUTION: A brain wave sensor part 2 provided in a brain wave detector 1 sends a brain wave signal to a signal transmitting part 3 and this carrier wave is brought to amplitude modulation by the brain wave signal, and transmitted to a signal receiving part 5 provided in an AV amplifier 4. Subsequently, it is demodulated and eliminates the carrier wave, sends it to a brain wave analyzing part 6, a ratio of a  $\delta$  wave incorporated in the brain wave signal received therein is detected, and in the case of <50%, it is decided to be in an awakening state, the analytic operation of the brain wave signal is continued, and in the case of exceeding 50%, it is decided to be sleeping, and the analysis of a ratio of the  $\delta$  wave in the brain wave signal is executed.

Consequently, when the ratio of the  $\delta$  wave exceeds 50%, it is decided to be in a sound sleep and its fact is informed to a control signal generating part 8, and a control signal for interrupting a power source switch is generated. Subsequently, a sound volume adjusting part 10 and a power source

switch 11 lower the sound volume of the AV amplifier 4 or interrupt the power source, respectively, based on the control signal.

COPYRIGHT: (C)1991,JPO&Japio